Diverticular Bleeding

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Abstract

Diverticular bleeding is the most common cause of massive painless rectal hemorrhage, accounting for 30–50% of cases. Diverticular bleedings are arterial bleedings that mostly result from a rupture of a submucosal artery at the base of the diverticula. In more than 80% of patients, diverticular hemorrhage resolves spontaneously. An active bleeding with identification of the bleeding diverticula is demonstrated. A ruptured small arterery is detected at the base of the diverticula. This article is part of an expert video encyclopedia.

Keywords

Injection; Lower gastrointestinal bleeding; Prevalence; Standard endoscopy; Treatment; Video.

Video Related to this Article

Video available to view or download at doi:10.1016/S2212-0971(13)70139-0

Technique

Colonoscopy.

Material

Endoscope: EC530WI; Fujinon Inc., Saitama, Japan.

Background and Endoscopic Procedure

Diverticular bleeding is the most common cause of massive painless rectal hemorrhage accounting for 30–50% of cases.[1] Diverticular bleedings are arterial bleedings that mostly result from a rupture of a submucosal artery at the base of the diverticula. In more than 80% of patients, diverticular hemorrhage resolves spontaneously. Nevertheless, blood loss is massive and rapid in 10–20% of patients. Diagnostic workup should begin with colonoscopy, following a rapid bowel preparation with polyethylene glycol solutions so that the procedure can be performed within 12–48 h of presentation. Endoscopic therapeutic maneuvers can be performed if the bleeding source is identified by colonoscopy, such as injection with epinephrine or placement of clips. However, at the time of endoscopy, active bleeding spontaneously resolved in the vast majority of cases and the bleeding diverticula cannot be identified.

The video demonstration shows an active bleeding with identification of the bleeding diverticula. A ruptured small artery is detected at the base of the diverticula. Because it is difficult to do selective clipping of the ruptured artery at the base of the diverticula, one treatment option is to close the opening of the diverticula with a metal clip. This is thought to decrease the risk of relevant rebleeding by compression of the bleeding site. Moreover, clipping serves as localization of the likely bleeding source in the case of a recurrent bleeding. In cases with ongoing diverticular hemorrhage despite endoscopic therapy, arteriography with selective embolization should be considered. Selective arteriography with therapeutic embolization effectively controls hemorrhage in 70–100% of patients.[2] Because most bleedings are self-limited, and because nonsurgical techniques to control bleeding have a high success rate, surgery is seldom necessary.

Key Learning Points/Tips and Tricks

- Diverticular bleeding is an arterial bleeding that is self-limiting in the majority of cases.
- Endoscopic treatment is possible, but in most cases, the diverticula with the ruptured artery is not identified.

Scripted Voiceover

Here we see a colonoscopy of a patient with acute hematochezia. After extensive rinsing of old and some fresh blood in the sigmoid, we see multiple diverticulae and this adherent blood clot. A peristaltic flushing pump is used to flush the blood clot away. Indeed, under the clot we find diverticula. At the base of the diverticula, the reddish nipple represents a small ruptured artery that is the likely cause of the bleeding. However, spontaneous bleeding already resolved at this moment.

References

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